Version - March 9, 2023

March 9, 2023 (Week 7)
ROOT part 2

Objectives:

- Learn useful ROOT tools

Outline:

- ROOT
    - ROOT files
    - Trees and branches
    - TBrowser
    - ROOT macros
    - TLorentzVector

Homework - due 8am March 14, 2023:

1. Write a C++ ROOT macro that reads in TTree from a file and produces invariant mass histograms
    - Read the signal.root file attached to the agenda
    - Access the tau_* and b_* branches (they are vectors)
    - Loop over all events in the tree
    - Create TLorentzVectors for each tau and b in each event
    - Create histograms of the ττ invariant mass, the bb invariant mass, and the bbττ invariant mass
    - Save the histograms as images